

THE FARM AND HOUSEHOLD.

Prevention and Treatment of Milk Fever.

One of the best methods of preventing milk fever is to feed the cow several weeks to several months before calving—according to its danger—if in winter, on ordinary dry hay only, with a quart or so of wheat bran, night and morning, to keep the bowels open; if in summer, let her run on a poor pasture, and at all times have a large lump of Liverpool rock salt to lick at pleasure. If the cow has been dried off a couple of months before due to calve, watch the approach to parturition, and if the bag shows extra full, then begin to draw a small quantity of milk from it two weeks or less before her time, and increase this, according to the fullness of the bag, till the calf is dropped; then milk her clean after the calf has sucked, at three equal intervals in every twenty-four hours. In the meanwhile do not increase her feed for a month or more, till all danger of fever is passed. If the cow has continued to give milk up to within a few days of the time for her to calve, as is sometimes the case, then perhaps it will not be necessary to milk her till after calving. Keep her dry and sheltered from storms and from excessive cold or heat. See that the water she drinks is pure, and that she has all she wishes to take at least three times per day. Never let this water get icy cold, and after calving give it slightly warm for a few days. As soon as affected, if not already in a comfortable stable, put the cow into one, litter the floor well, and always keep this dry and clean. One of the most simple and effectual prescriptions for this disease is half a pound of Epsom salts dissolved in three or four quarts of warm water mixed with two tablespoonfuls of sweet spirits of nitre. Wet up a small feed of wheat bran with this. If the cow will not take it so, then put the salts and nitre solution into a strong-necked bottle, raise up the head and pour it down the throat. Repeat this every morning till cured. This simple remedy rarely fails, even in the worst cases, if all the above directions are carefully followed. Rub the bag with lard, mixed with the last strippings, every time the cow is milked. This renders the bag soft and pliable and prevents the milk from caking in it.—*National Live Stock Journal.*

Farm and Garden Notes.

Keep sheep dry under foot. This is even more necessary than roofing them.

Young cows do not give as rich milk as those of due mature age. A lean cow gives poor milk and a fat one rich milk.

Grass grown on manured land gives a more nutritive fodder, richer (especially in albuminoids) than that grown upon unmanured or poorly manured land. The difference is sometimes as great as ten per cent.

A heifer coming in at two years old is the best time for developing her future milking qualities. Comfortable quarters, generous feed, regularity in feeding and kind treatment will do much, however, in rearing a fine milker.

The *Gardener's Monthly* says that in England apples are dried whole. They seem to be first pared and then placed under pressure, as they are always much depressed. A kind named Norfolk Beaufort seems almost wholly used for this purpose.

An Ohio farmer wants to know what per cent. of grain is lost by the process of threshing, and suggest that farmers see that their straw and chaff piles are run through the machine a second time, and note the result. He believes that, so far as his knowledge extends, enough is wasted to pay the threshing bill.

The Asiatic breeds, such as the Brahmas and Cochins, if overfed with rich grain and succulent roots will soon become too fat to be serviceable as layers. Fowls need to be well fed in cold weather, but great care must be exercised with the breeding stock in particular, as if they become too fat their eggs are often infertile. Allow plenty of green chopped vegetables, such as onions, cabbages and turnips.

Manure the land heavy enough to make it loose, and plant for several years crops that could be cultivated throughout the season; or, what is still better, grow two crops the same year, and keep them well cultivated throughout the season. Couch grass can be easily killed by hoeing it once or twice the last of July and first of August with a sharp hoe, cutting the grass an inch below the surface of the ground.

The complicated character of the udder with its thousands of little reservoirs renders it necessary to observe great care in drying off the cows in the fall. If milk is left in the udder the absorbents will readily remove the watery portion, but the chassy material is removed with difficulty and is liable to remain and inflame the udder—possibly destroy a portion. Every particle of milk should be drawn occasionally till the cow is dry.

As to the five-wire fence, a short time ago I was driving some hogs, and hog-like, they "took another notion," and ran right through the wire fence, and though the hogs made them squeal, they did the same thing again and again, and they were not pigs either, but hogs that would weigh over 300 pounds. Another objection to barbed wires is that horses and cattle in passing along or standing near, especially in "fly time," often switch in that direction, and often stay switched.

A farm can be stocked with sheep cheaper than with any other animals. Sheep will come nearer to utilizing everything which grows on a farm. Less labor will be required for getting feed and stock together. The returns will come in sooner and oftener than with any farm stock except hogs. Less money is required for shelter and fencing, and less labor is required for herding, when outside pastures are accessible and preferred. And finally, a handsome income on the investment can be had without the sale of the animals themselves.

Receipts.

Knew Governor's Poisoning.—One pint

FACTS AND COMMENTS.

The New York *Hour* calls attention to the fact that greater care is taken of young fish than of children in that city. For while more than half the children die before the age of five, the fish commissioners say that only about two per cent. of the spawn of shad or salmon are destroyed.

About 30,000 people in the city of Buffalo drive their support from the railroad companies. The amount expended there by the different roads in wages will foot up over \$3,000,000 annually. During the past year over \$1,000,000 have been expended in that vicinity for improvements.

Bruised and burned in the Spryten Duvyl (N. Y.) disaster—his arm consumed to the elbow and the throes of death upon him—Oliver B. Keely thought of his wife and sent her a message of love—"Write to my wife and give her my love"—a last, precious message to a stricken heart. That man died a hero.

A stone bridge to be built over the Mississippi at Minneapolis, Minn., bids fair to become one of the most notable structures of the world. It will consist of sixteen eighty-foot spans and four 100-foot spans, and, including the shore piers, will have a total length of 1,900 feet. It will support two railway tracks at a height of over sixty feet above the water, and will run diagonally across the river below St. Anthony's falls. The cost is estimated at nearly \$500,000.

There is a bird in the London Zoological garden called the hornbill, whose keeper stands ten feet off and tosses grapes at the bird so rapidly that nobody's eye can follow them through the air, but the bird's eye can, catching every one in its bill at almost every conceivable angle; of half a dozen grapes shot at him in rapid succession, he will not miss more than one. In this country he could get a first class position in the national baseball league.

Ex Governor Bagley, of Michigan, who died not long ago, was a very successful man in business and eccentric in his habits of life. In his will he directed that his employees—those who had made his fortune—should not suffer by his death. They were to be retained in the service of his heirs, for a time at least, and on the day of the testator's funeral they were to receive presents as follows: Fifty dollars to all who had been in his service five years, \$200 to all who had served him ten years, and \$500 to all who had served him fifteen years.

On a cold night a prisoner who was being court martialed on the United States flagship *Lancaster*, at Nice, France, broke from his guard and leaped into the water. Some sympathizing comrades tried to intercept his pursuers, but John Morris, a corporal of the marines, pushing them aside, jumped in with clothing and equipment on, caught him after swimming 150 feet, held him under water until he submitted to arrest and delivered him on deck with soldierly rigidity and gravity. A cold wind was blowing from the Alps at the time. The corporal has been recommended for promotion.

Southern land syndicates are becoming numerous in New York, London, Boston and Amsterdam. Sir E. J. Reed, representing English investors, and Dr. Jacobus Westheim, of Amsterdam, representing investors in Holland, have just bought two million acres of land in Florida, and Phillips, Marshall & Co., of London, have bought 1,300,000 acres in Mississippi. The Mississippi purchase consists in good part of levee lands in the Yazoo delta. A Nashville syndicate holds 100,000 acres in Tennessee and Mississippi, and, according to the *Atlanta Constitution*, scarcely a commercial paper is without its advertisements of Southern land schemes.

The town of Dennisonville, near the south end of New Jersey, has a singular industry in the digging of cedar trees out of a swamp where they have lain for hundreds of years. The swamp is ten miles square, and the trees are piled to an unknown depth. The digging has been going on for ninety years, and but a fraction of the timber has been taken out. The trees are large, and the wood, which is perfectly preserved and not even waterlogged, is used for making shingles, tubs and pails. The diggers locate the trunks, at the depth of a few feet, by prodding, clear away the earth and roots and cut them off at top and bottom with a saw like that used to cut ice, when the logs rise in the water and are hauled out. It is supposed that the trees grew there when the swamp was filled with fresh water, and that, by some change of land, sea water suddenly came in, and that the trees were overthrown and buried.

A French chemist named Gros professes to have made a discovery which acquiesces both France and Germany of the charge brought by each against the other of having used poisoned bullets during the late war. This horrid accusation has been defended by the surgeons on both sides, who have persisted in declaring that poison was present in many wounds which they treated, in sufficient quantities to baffle their skill. M. Gros traces this poison, not to deliberate human contrivance, but to the breechloaders of the period. The kindling of the gunpowder, he says, developed in the sides of the barrel a small quantity of prussic acid, which was inhaled by the ball during the rapid transit, and this fatal poison was consequently lodged in the wounds of many a luckless Frenchman and German. Hence the reason why it was so often found to be difficult or even impossible, to heal even slight wounds, and the doctors on both sides were justified in their declaration that poison was present. The fact that

similar poisonings of the wounded did not occur formerly was due, says M. Gros, to the paper used, which absorbed the small particles of poison and regularly cleansed the gun-barrel.

The Building of Homes.

A farmer writes in the *American Agriculturist*: Double doors—folding or sliding—are a great social "institution." By them two rooms may be thrown into one. A good broad hall becomes in summer an extra room. The air circulates. There is a freedom, an openness about the house, which gives an air of superiority to even very humble dwellings. The superiority is real, too. If we invite a few friends for the evening, it is not necessary to confine them to the "parlor," but the doors are thrown wide open, our guests will fill parlor and hall, and sitting-room and kitchen, perhaps, and yet all are one company, for the broad doors being open the whole house is thrown together. Music sounds through such a house delightfully, and people have a good time and love to come, because it is so cheerful and social. Another point in our home building which we too often overlook is the exposure of the principal living and sleeping rooms to the direct influence of the sun. The effect of the sunlight is best gained when the house stands with its corners toward the cardinal points, for thus the sun shines with considerable power on all sides of the house every clear day in the summer, and yet his power is broken, because at noonday the rays strike two sides obliquely, and very soon leave the southeastern side in the shade. We should not forget that the sunshine is healthgiving; dampness and shade, if slightly in excess, injure the health of both men and animals.

One thing more is the importance of having some provision for fire in the chambers. We build for health and not for sickness, and I do not hesitate to say that many a family mourns the loss of a member simply because the sleeping room could not be easily heated.

The best mode of heating no doubt is by an open fire of some kind. It is very easy in building to make open fireplaces in at least three chambers through which the chimney passes.

Of course open fireplaces are not economical of fuel, but in the chambers fire is seldom wanted, and stoves may be used if preferred. As to economy of fuel, builders as well as architects and proprietors, either frequently overlook one important fact, or they do not look at it, that is, that the warmest part of any room is farthest from the floor; so if we make our rooms ten or eleven feet high we must heat the air in all that upper part before a person sitting at a table begins to feel at all warm, unless he is where he gets radiation from the stove or open fire. Low ceilings effect the greatest economy of fuel, and even make open fires economical as compared with stoves and high ceilings. Nine feet is, I think, an extreme height for the ceiling of an ordinary country house, say one in which the largest room is not more than twenty feet square, or of equivalent area.

Besides, there are other numerous considerations which tend to the saving of fuel and at the same time increase the healthfulness and comfort of a home. Some of these are the material of the walls, their impenetrability to air and moisture, "deadening" of the floors, which adds greatly to their warmth, good joiner work about windows and doors, etc.

A Beautiful Spot.

The vale of Santa Barbara, for sixty miles facing the Pacific ocean, we consider the most attractive in California, says a letter from the Pacific coast. The soil is extra deep dark alluvium. By the formation of the coast it is sheltered from the rude trade winds, elsewhere so unpleasant on our shores. Here flourish in luxuriance the fig tree and the olive, the prune and the almond, the orange and the lemon, the nectarine and the pomegranate. Here grows alfalfa clover, giving three cuttings a year and pasture through the winter. Here flowers bloom perennial. Here only is a paradise of roses and other fragrant flowers cultivated for commercial perfumery. Here the bee pastures all the year, the hivers gather honey every day and abstaining themselves they give to man nearly their whole production. Only in stress of stormy weather they draw upon their hoarded sweets. Feathered songsters never migrate from this elysium. Man's dwelling is enlivened by the chirp of birds and their music gives perpetual cheer, unchecked by winter frosts. Happy, thrice blessed are they whose lot is cast where happiness is so lightly wooed and won! Here in mid-December the company's rose gardens are a sight to charm the eye, when, day by day, children gather ever-blooming flowers for extraction of perfume for the toilet.

What a Boy Will Do.

An exchange says a boy will tramp 247 miles in one day on a rabbit hunt and be limber in the evening; when, if you ask him to go across the street and borrow Jones' two-inch ruler, he will be as stiff as a meat block. Of course he will. And he will go swimming all day and stay in the water three hours at a time, and splash and dive and paddle and puff, and next morning he will feel that an unmeasured insult has been offered him when he is told by his mother to wash his face carefully so as not to leave the score of the ebb and flow so plain to be seen under his gills. And he'll wander around a dry creek-bed all the afternoon piling up a pebble fort, and nearly die off when his big sister wants him to please pick up a basket of chips for the parlor stove. And he'll spend the biggest part of the day trying to corner a stray mule or a bald-headed horse for a ride, and feel that all life's charms have fled when it comes time to drive the cows home. And he'll turn a ten-acre lot upside down for ten inches of apple worms, and wish for the vilest tooth when the garden demands his attention. But all the same when you want a friend who will stand by you and sympathize with you and be true to you in all kinds of weather, what one of these boys would do.

FOR THE LADIES.

Pretty but Exaggerated.

The Baroness Alphonse de Rothschild paid a pretty, if somewhat exaggerated, compliment to a prima donna the other day. She invited the young lady to dine with her, and after dinner asked her to try the tone of her piano. Not a sound came from the keys when touched. "I had the instrument untuned, mademoiselle," said the baroness, "that you might see that the only pleasure that I promised myself from your presence this evening was the pleasure of your society."

News and Notes for Women.

Chicago has 50,000 girls working at the various trades for the average wages of \$2 a week.

It is said that Mexican ladies, even among the wealthiest families, make their own dresses, almost as a universal rule.

New fashions for ladies were set in the last century by dressing dolls in the prevailing mood and distributing them over Europe.

If the Baroness Burdett-Coutts survives her marriage ten years she will have paid, without interest, \$3,750,000 for a husband, taking her loss consequent on marriage at \$75,000 a year.

The fact that nobody is ever the first person at a party is accounted for by a New York paper on the hypothesis that one man and two women are hired to be the first comers and sent away as soon as they have fulfilled their mission.

Miss Kate Kane, of Milwaukee, Wis., was admitted to practice in the supreme court at Madison, recently. Miss Kane is the second lady lawyer ever admitted to practice in that court, the first having been Miss Lavinia Goodell, who was admitted in June, 1879.

It is reported that a number of ladies in Washington—some of them prominent in society—have organized a secret association called "Guardian Angels." Its purpose is the exertion of social influences for the reform of congressmen and others who are inclined to the cup that inebriates.

Madam Patterson Bonaparte, of Baltimore, left a remarkable collection of bonnets, including every one that she ever possessed, and as these were always in the highest style of the milliner's art the collection makes a museum that is decidedly attractive to the female eye.

Mrs. John Haskell, of Auburn, according to the *Lewiston (Me.) Journal*, is one of the best educated women in Maine. She is well versed in conchology, geology, ornithology, astronomy, botany, the classics, mythologies, etc., and has accumulated a library of 1,000 volumes, including many rare and valuable works. Mrs. Haskell is fifty years old, and has acquired her education since her marriage, without the aid of teachers.

Fashion Fancies.

Cloth applique figures on satin cover new mantles.

Large spots called moons are wrought in new brocades.

Ivory, tortoise shell or ebony sticks are preferred for fans.

Black satin balmorals are lined with red or pale blue plush.

Afternoon frock costumes are of somber gray and brown shades.

Chintilly lace will supersede the Spanish lace now in vogue.

Diamond shaped openings on corsages are newer than square necks.

Chenille fringe and feather borders are considered more elegant than fur.

Jet bead bonnets are trimmed with creamy Venetian lace and pink and white feathers.

Red with green is the stylish contrast this season. Rose with leaf green is chosen for evening dresses.

Polonaises of black moire' silk will be worn over white satin and black velvet striped goods for underskirts.

Skirts with trimmings formed of sections of different materials are very fashionable, but they are not pretty.

Machine lace is used so much in the making of muslin evening dresses that the manufacturers can scarcely meet the demand.

Long tight cuffs of plush, moire or velvet are seen on cloth and camel's hair dresses, the sleeves above the cuff being rather full.

Embroidery is quite as fashionable as lace, and both are used in combination on dresses, on accessories of the toilet, on underwear and household decorations.

The waists of fashionable, conventional dresses grow longer and longer, while those of aesthetic dresses grow shorter and shorter.

A last year's princess dress or polonaise may be made to look new and stylish by adding a tablier or plastron, and collars and cuffs of Oriental surah or Turkish cashmere in subdued colors. Children's dresses can be freshened in like manner, substituting, if desired, a tunic or scarf for the plastron.

A novel evening toilet is of pink and white satin, one-half of corsage and skirt and one sleeve being pink, the other half and sleeve white, but the sharp line of contrast in color is toned down by profuse ruffles, cascades and flounces of billowy lace. The flower garnitures are pink and white roses with a dash of scarlet in the form of a poppy here and there.

Dressy Mother Hubbard cloaks of three-quarter length have lately been introduced. They are quite unlike the long Mother Hubbards generally worn, and are made of soft, fawn-colored surah lined with finely quilted satin, and bordered with a handsome trimming of silver fox or Russian lynx. Bonnets to match are trimmed with narrow bands of fur, and tied with surah strings lined with crimson.

A novelty for bridesmaids are caps of white silk tulle, with full Moorish crowns gathered into a satin band covered with high lace. A married bridegroom above all makes in white tulle, through this lace, resembling a veil.

in long fringed ends, which are quite a yard and a half long, and are intended to reach nearly to the foot of the dress. These caps are not likely to become either very becoming or very popular.

The Editor and the Smallpox Doctor. It was nearly noon, and the city editor in his sanctum was putting the finishing touches to the assignment book, while the waiting scribes in the *Inter-Ocean* local room were grimly pondering as to what choice bits of work would fall to them when the customary "Book ready, gentlemen," should be heard.

The city editor had just decided that the church reporter needed a little relaxation, and booked him for a dog fight, when, in response to a rap on the door, he ejaculated in his blindest tones, "Come."

The knocker came, and proved to be a colored gentleman of affable manners and the medical persuasion. Said he, "How do?" and the greeting being returned, he resumed:

"You see, haven't been around lately; been busy; little matter in the paper I was going to ask you to say something about for me; would have been up before, but been busy; so much smallpox about; I've been nursing one man with smallpox for eight days, and only just run away now to—"

"W-h-a-t? Get out. You don't want to see me. It's a man outside. Here, hi!"

And the city editor hollered for the contagious diseases editor and rinderpest reporter. This member of the staff, who draws a princely salary for doing balloon excursions in the summer and epidemics in the winter, was absent; however, having stepped out to buy a sealakin overcoat.

The doctor continued:

"Never mind, it's short; don't trouble; only an item. Bad case? Yes, as I was saying, eight days—"

"Get out!"

"Afraid of smallpox? There's no danger. After eight days—"

"Get out! Write a letter to the paper, and we'll print it! Get out!"

The request to get out was here accompanied by demonstrations, and he got. That is, the caller got as far as the passage, where he was told through the keyhole to communicate by postal card, which card can be soaked in vinegar first, and then read with a telescope from the top of the shot tower.—*Chicago Inter-Ocean.*

Doctors Among the Boers.

There is no man a Boer has greater reverence for than a doctor, yet those in the Transvaal are mostly unqualified practitioners or quacks of the most audacious kind. But he will drive miles to fetch one of those fellows, and hand over the fee with a groan, without a thought of disputing it. The rapacity of these practitioners is incredible. Not many months ago a Boer living on the highroad to Pretoria called in a local doctor to attend his wife. Everything passed off quite satisfactorily; and the doctor asked as his fee \$750, and got it. As the Boer said, "it was a very dear baby." And this man had only driven some eight miles to the farm.

A more amusing incident happened when another doctor was called upon by a Boer, with an urgent request that he would come out to his farm to attend a sick man.

"How far is the farm?" asked the medical man.

"About twenty miles."

"Twenty miles—twenty pounds. A pound a mile." To which the Boer agreed, and went away to fetch his "spider." On returning he found his friend a little the worse for liquor, but thinking the effects would soon pass off he took him up and they drove away. After going some few hundred yards the doctor laid his hands on the reins, stretching one out and hiccuping.

"One mile—one pound."

The Boer, willing to humor him, gave him a pound and drove on again; but before half the previous distance was done the trap was again stopped, and the hand poked out under the driver's nose—

"Two miles—two pounds." This was too much even for a Boer, and he turned and drove back, doing as best he could without advice.

I know a third case, where a doctor attending a patient called at the house nineteen times in one day, asking for his fee at each visit, and managing the business by calling at the front door, leaving through the kitchen, and going round to the front again. But then he was a bit drunk too.

The fees are given in written promises to pay, called "good-fors," as Boers seldom keep sums of money in their houses; and these "good-fors" are readily taken at any store where the Boer is in the habit of trading, the storekeeper knowing that they will be taken up when the man comes in to sell his produce.—*Blackwood.*

A New Theory of Vaccination.

Many scientists express the belief that vaccination, which has done so much to prevent the ravages of smallpox, will be extended to the eradication of scarlet fever, and many other contagious diseases, the mortality from which is truly appalling.

At the International Medical congress, held in London, in August, Professor Pasteur, in his lecture on the germ theory, referred to his highly successful results in vaccination of the lower animals for spleen fever and chicken cholera. He said he had successfully vaccinated more than 20,000 sheep, in and about Paris, just before his arrival to attend the congress, as well as a large number of horses and cattle.

After reviewing his method of producing the vaccine, Professor Pasteur said: "We may hope to discover, in this way, the vaccine of all virulent diseases." He concluded by saying: "I have given to vaccination an extension which science, I hope, will accept as a homage paid to the merit and to the human services rendered by Jenner, one of the greatest men of England." This theory is now fairly before the medical world, and should receive the most careful consideration.

1. partial. Address Times Square, Cincinnati, O.

Three Shadows.

I looked and saw your eyes
In the shadow of your hair,
As a traveler sees the stream
In the shadow of the wood;
And I said: "My faint heart sighs,
Ah, me! to linger there,
To drink deep and to dream
In that sweet solitude."

I looked and saw your heart
In the shadow of your eyes,
As a seeker seeks the gold
In the shadow of the stream;
And I said: "Ah, me! what art
Should win the immortal prize,
Whose want must make life cold
And heaven a hollow dream?"

I looked and saw your love
In the shadow of your heart,
As a diver sees the pearl
In the shadow of the sea;
And I murmured, not above
My breath, but all apart—
"Ah! you can love, true girl,
And is your love for me?"

—Rossetti.

AN EAST BLOW.

The summer hotel among the mountains was almost deserted. Half a dozen of the late-staying guests were gathered in the little parlor for their last evening. A high September wind turned their thoughts to the desolation of the winter months in the White Hills. Maud Wellington, always a leader in talk and action, called to the landlord:

"Come here, please, Mr. Little; tell us how you ever live here through the winter?"

"Wa'al, you jest come up here and try one of our east blows! I tell you, you don't know anything about the mountings. You only come up here when it's warm and nice, and Mr. George he drives his team around, what d'ye call it?"

"Tandem!" suggested George. "Yes, tandem; and he takes you girls to drive, and it's all very pretty. Jest let him be here in the winter, and he'd drive tandem, sure enough."

"Wouldn't it be fun?" asked Maud. "Would you really take us in if we came up next winter?"

"I guess most likely I could. You'd have to kinder put up with things, though. I'd be real glad to see you, naow; the winters is awful lonely!"

"I am in earnest, and I will come if the rest will. I think it would be jolly," said Maud.

"Yes, quite too awfully ghastly jolly," murmured her brother George, whose slang was overwhelming.

The others all promised they would join her if she formed a party, and the next morning they separated and forgot all about the plan and the promise, as people do.

It was late in December. The holidays were approaching. Maud Wellington was restless and dissatisfied. The season had been very disappointing. Everybody was dull and stupid; Germans were tiresome, dinners were so, and she was tired of Boston and every one in it. And all this was because a certain Thomas Sedgwick Thornton had not appeared in the city as she had expected. It was none the less true because she would have denied it, and that she had always laughed at him, and professed to hold him in the most perfect contempt. She knew perfectly well that he was a hard working lawyer in New York with little time for holiday making, but she was quite unreasonable enough to think that such trifles as business made no difference. He ought to have admired her enough to have made any sacrifices, and made haste to continue the summer's acquaintance. It made no difference to her, also, that there were many others as assiduous in their devotion as he was remiss. He was the Mordecai at the gate, and she was unhappy. The wind howling round the corner of the house took her thoughts back to the last evening in the mountains, and a sudden resolve made her spring to her feet.

"Mother," she cried, rushing into the warm library, where her mother sat dosing before the fire, "I have made up my mind. We will go up to the mountains and see how they look with the snow on them."

"You crazy girl! we won't do anything of the sort."

Mrs. Wellington always made a point of seeming to oppose her daughter's plans, but she always did just what her children told her to do. Maud wasted no words in entreaty, but coolly told her that she must go, without any more ado.

With Maud to decide was to act. George was delighted with the prospect of such a "lark"; he had not known what to do with the holidays. Notes were immediately sent to those who had been with them when the proposition was made, and to several others who might be congenial spirits. When they had written nearly all Maud said, with perfect carelessness:

"I suppose you will have to write to that Mr. Thornton. I don't think he would add much to the general hilarity, but I am afraid it wouldn't do to leave him out and ask all the rest who were there."

"Right you are!" said George. "I'll send an invite to the old duffer; he's not half a bad fellow, after all. Of course he won't put in an appearance."

But it is the impossible which happens. For some occult reason Mr. Thornton chose to join this wild expedition, and presented himself at the appointed time at the rendezvous. With the exception of himself and poor Mrs. Wellington, who looked already victimized, it was as gay a party as Boston could furnish.

As usual, it was Maud who was leader and prime favorite. But she was admirably seconded by three of her friends, only a little less brilliant and daring than she. Then there were two or three society men who would have gone anywhere that Maud and her set proposed. Little did they care for the grandeur of mountain scenery in its severe winter dress, but the trip promised much fun and unlooked-for opportunities of carrying out certain intentions. Last and

noisiest of all came George Wellington, a Harvard Sophomore, with an equally reckless and hair-brained classmate, whom the ladies alternately petted, snubbed and used as foils in their most serious schemes.

Mr. Thornton felt out of his element, as he had done so many times during the summer. He was not keyed to the same pitch of high spirits and unceasing gaiety. He was grave, quiet—a man who was terribly in earnest about everything he did. From the first moment that he saw her he became fascinated with Maud, against his will and better judgment. Her beauty, wit, caprices, would not let themselves be forgotten. He was angry with her, he heartily disapproved of her a dozen times a day; and then, when he was most indignant with her, he discovered that he loved her with a love which he could not reason away nor live down. He was more bitterly enraged with her than ever to-day, as the cars rapidly bore them toward the mountains. He cursed himself and his folly in having joined them. No one seemed to want him. Maud, with her usual perverseness, had given him a careless greeting, and turned away to lavish her brightest smiles and merriest speeches on Gilbert Livingston, a man whom he cordially hated and despised. Mrs. Wellington alone seemed to need him. She was nervous, weak and timid, dreading the journey, and unable to control her children's madness, so she clung to Thornton with instinctive trust in his sober strength. He never dreamed, being blind as men are, that Maud saw every motion that he made, that she had so placed herself as to hear every word he spoke. He only saw, with wrath and shame, that she was flirting openly, desperately, with that soulless, brainless Livingston.

But even Thornton shook off his gloom when they came among the hills. The highest peaks were white with snow, reflecting the setting sun with dazzling brilliancy against the marvellous blue of the sky. It was very cold, but clear and still, when they left the cars for their drive of a few miles. Mr. Little met them with his six-horse stage; the wind had not left enough snow on the rising ground for sleighing, to Maud's regret. It was an exhilarating drive. The clear air made each inhalation an increasing joy. The laughter and the sweet, ringing voices of the girls no longer jarred upon him; he was a boy himself, and startled them by his wit and gaiety. Maud was delighted. She warmed toward him, and left poor Livingston shivering out of the sunlight of her favor. It was all going to be a perfect success, she thought, and blessed herself for the inspiration.

The hotel, when they reached it, after the stars had come out superbly in the clear air, looked as if prepared for a siege. It was closed, except a few rooms on the ground floor of the west and south sides. On the north and east every blind was securely fastened.

"Have you had an east blow yet?" asked Maud, as they dashed up to the door.

"No, miss; not yet," said the landlord. "I guess we will have, pretty quick, though. The mountings hev kinder looked like it all day."

"I hope it will come. I should consider our whole trip a failure if it doesn't."

Mr. Little shook his head and smiled doubtfully. "I guess when you've seed one you won't be likely to want to see another very quick."

The next day was gloriously clear. There was no wind stirring as yet. It was this stillness that roused the forebodings of the landlord. His guests had a magnificent walk, they said; they climbed part way up Starr King and had a view a hundred times more superb than they had ever imagined it could be. It had been hard work climbing over the slippery rocks and they came back to the house delightfully tired and in undiminished spirits. The general hilarity flagged not during the cozy evening round the huge, open fire, and one and all pronounced their satisfaction and delight—all except Mrs. Wellington, who had not stirred from the fire all day, and who grew more and more nervous as the talk about the expected east blow continued.

In the morning Mr. Little's predictions were verified. The city people's ears were startled by what he had so often described as the "roaring of the mountings." This strange, steadily increasing roar, which seemed so inexplicable, filled some with alarm, some with most enjoyable excitement. Mr. Little called them to see the "churning of the clouds up the chasm," and, looking, they forgot to smile because he pronounced the *ch* of the last word as he did in the first. It was a sight not to be forgotten, a grand, terrible sight, as the angry clouds came up, rolling over and over, as it seemed, through the gap which opened out toward the east.

Within the house there were hurried preparations. Mrs. Little and her sons went about making everything as fast as possible, while her husband and his two men went to the barns to give the cattle and horses food and water to last them till the storm had passed; for when it had reached its height, neither man nor beast could stand against it. Thornton, George and his classmate prepared to go down to the barn and help them, for the time seemed very short. Every moment the tempest increased in violence. Quick as thought Maud wrapped herself in her fur cloak, and said she would go with them. Her mother was so distressed that she would have desisted, but that she caught Thornton's look of disapproval and disgust, she thought, and then nothing could have prevented her. Being her brother's head she rushed out of the house. The barns were west of the hotel, some little distance down the hill. The wind carried them on as if they were straws, and drove them breathless against the building. Maud had never dreamed of its force. When they were inside the barn, and the door had been closed with difficulty, Thornton said to her, very calmly:

"This is perfect folly. If you do not go back to the house instantly you will not be able to go at all."

Mr. Little said the same; the storm

foared so they could scarcely hear each other even then. Maud was bitterly ashamed of her folly, but not one whit afraid. Even Thornton could not help admiring even while he blamed her. He asked Little to take her and "the boys" back to the house. He himself, being strong and large, would stay and help the men. It was the best plan. The four had a hard fight to return. Holding each other's hands, one keeping behind the other as much as possible, they struggled up the hill. Once they fell flat to the earth, but regaining their feet after a moment they toiled on and reached the protection of the house. Little said he had never seen the "blow come on so fast." There was no use in his trying to go back to the barn; the men would do what was necessary, and his strength was half used up in his efforts already. After Maud had regained her breath she went to the window, and would not stir or speak. Her eyes were fixed on the barn. The others gathered round the fire in awed silence. The terror of the storm was upon them. It seemed as if nothing could stand against its violence. Mrs. Wellington was nearly fainting with fright. She was certain that the house would go. Once Maud turned and said, in a strained, hard voice:

"Mr. Little, how long does this sort of thing generally last?"

"Wa'al, it begins about noon to be the worst, and it keeps it up till next morning."

"Ought not the men to come up pretty soon?" she asked again, with ill-concealed anxiety.

"Oh yes, they'll be up directly, I guess."

But they did not come. Once Maud saw three figures creep around the partially sheltered side of the building, but when they reached its front they were struck down, and she saw them crawl on their hands and knees back in to the sheds. The full horror of the circumstance struck her. Calling Mr. Little she told him what she had seen.

"Then they must stay there till it is over!" she said, in a low, unnatural voice.

"I'm afraid so," he answered, anxiously.

"Do try to help them," she pleaded, so earnestly that the men all resolved to try, though it was of so little use. Taking a rope Little tied all the volunteers firmly together; even the "howling swell," Livingston, as George called him, offered to help. When all was ready they crept along the western side of the house with little difficulty. But when they reached the corner they went down like planks. They tried again and again, and then came back into the house tired and exhausted.

The short afternoon had passed; the early darkness made the terror of the storm more awful. Maud still strained her eyes through the deepening gloom. The storm at that moment was at its height. Clutching the window frame tightly with her fingers she pressed her dilated eyes against the pane, and saw with speechless horror the roof of the large barn swept off as if it had been paper. It was all the more terrible because not a sound of the falling timbers could be heard above the ceaseless roaring of the wind.

It was an awful night. No one thought of sleeping. They clustered together about the fire in silent terror. From time to time Mr. Little spoke reassuringly. There was no danger for themselves, he said; the house was firmly built; large beams passed diagonally from floor to ceiling through the partition walls; it was not possible that they could give way. But the awed hearts were not easily assured. Maud alone had no thoughts for herself or the safety of the house. She had seen the roofless barn, and she strove to picture the fate of Thornton and the two men with him, without food, without fire, with no roof to shelter them, and perhaps crushed by the falling timbers, for it had been too dark to see the extent of the disaster. She told no one of the sight which she had witnessed. Only she and Little knew what had happened. All that was best in her came to the surface that long, agonizing night. Never again could she silence her better, nobler self. Very base and contemptible seemed all her wiles, her caprices, her coqueries. It had been her wild folly that had placed Thornton in this danger. If she had not delayed the men they could have returned to the house before it was too late. If he were alive when morning dawned he should know how bitterly she had repented.

She remembered how she had trifled with him when once the summer before he had told her that he loved her more than he had ever loved any being before or ever could again. She had not meant to drive him away from her; she had only meant to tease him for a little. But he had taken it all in earnest, and now of course he had ceased to think of her except to despise her. If he had continued to love her would he have been so silent? She little knew that the man who was all sincerity could not understand the insinuations.

He would never care for her now, of course, and she loved him with all the force of her strong, ungoverned heart. After that night of agony she could never be the same.

The pale daylight dawned upon her white face. The wind died slowly down as the sun came up the troubled sky. The ruin of the night was revealed to the weary watchers.

Three men came slowly up the hill, tired, hungry, half-frozen, but safe. They had made a comparatively warm nest for themselves in the hay, where they had passed the sleepless night. The part of the barn which sheltered them and the cattle and horses had been uninjured, and not a man or beast had been hurt by the falling beams.

Mrs. Wellington could not be induced to remain an unnecessary moment in the terrible place, and late in the afternoon the subdued party were on the car returning to Boston. Thornton confessed that it was the most uncomfortable night he had ever passed, but that he would cheerfully have undergone the greater hardships for the reward that it brought him. Before

they had reached the city he had learned of the agony which the night's suspense had been to Maud, and she had acknowledged her love for him in answer to the passionate feignation of his devotion to her. And this was the work of an East Blow.—*Harper's Bazar.*

Journalism in the United States.

The variety and extent of journalism in the United States is shown off to great advantage by the forthcoming report of the tenth census. The collection and collation of the facts bearing on this particular national industry was committed to the hands of S. N. D. North, who is himself an experienced newspaper editor, and his report will show that there were printed in this country during the late census year 11,418 periodical publications of which 982 were daily, 8,725 weekly, and the remainder semi-weekly, tri-weekly, bi-weekly, monthly, semi-monthly and tri-monthly. New York takes the lead with 1,412, Illinois coming next with 1,032; Missouri standing eight on the list with 581. These publications are divided into some twenty classes: Devoted to general news, politics and family reading are 8,556; to religion, 572; agriculture, 162; commerce and finance, 143; trade, 168; insurance and railroads, 51; magazines and periodicals devoted to general literature, 145; Sunday newspapers, 217; medicine and surgery, 117; law, 44; science and mechanics, 43; education, 28; art, society, music and fashion, 72; college and school papers, 219; children's and Sunday-school, 192; freemasonry and similar, 146; illustrated publications, 512; miscellaneons, 490. Of the whole number 9,619 are printed in English, and 769 in other languages. Of these latter 606 are German, 35 French, 4 Indian, 2 Chinese, 2 Polish, 5 Welsh, 15 Bohemian, 2 Portuguese, 26 Spanish, 21 Swedish, 9 Dutch, 4 Italian, 15 Norwegian and 1 Catalan. Of the religious publications there are 114 unsectarian, 75 Methodist, 73 Baptist, 67 Catholic, 32 Episcopal, 39 Presbyterian, 6 Dunkard, 6 Spiritualist, 6 Mormon and 1 Shaker. An estimate of the cost of running these publications shows that \$28,571,336 was paid out in wages alone during the census year; the percentage of which paid for work on daily papers was 66.65 and for weekly and other papers 43.35 per cent. In the production of these publications 59,799 male and 3,855 female operatives find employment; 16,480 persons, among whom are quite a number of females, are returned as editors or on editorial staffs. The gross value of the annual product of these publications amounted to \$87,441,132, of which the dailies are credited with \$42,750,132, and the others with \$44,690,998. The percentage of receipts from advertising on the former was 59.69, and the latter 43.31 per cent. The percentage of receipts from subscription was—dailies, 46.21; others, 53.79. The average daily consumption of paper was on dailies, 297,568 pounds; the total weight used during the year being 178,165,951 pounds. The aggregate circulation per issue of dailies was 3,637,424 copies, and for all classes, 31,177,924. The aggregate number of copies of daily papers issued during the census year was 1,185,532,446, and for all classes 2,077,650,675. The average subscription price of daily papers is \$7.31. The people of this country pay out more than \$26,000,000 a year for their newspapers and periodicals.

Mr. North's newspaper statistics will soon appear in the shape of a report, which will give an exhaustive history of the subject, and when his investigations, which are of a more thorough nature than ever before made in this line, are completed he will present the Smithsonian institute with a collection, embracing a copy of every paper ever printed in this country.—*Paper Trades Journal.*

A Checkered Life.

The Leadville (Col.) *Democrat* gives the sad particulars of a life wrecked by whisky. An old man named Joseph Ives died in a saloon in Leadville just after he had taken a drink at the bar. In his end it seems was consummated as checkered a history as ever fell from the pen of a novelist or romancer. The *Democrat* says:

Years ago he entered Oxford university. In his studies he had developed a peculiar and marked taste for astronomy, and at the conclusion of his term had studied the science of the skies so long and well that a chair was offered him. This he accepted and filled for a term of years with honor to himself and profit to all with whom he was associated. At last a combination of distressing circumstances lured him to leave England, and he came to this country. It is needless to trace how he came to this city four years ago, and was not long in drifting into the position of a public charge. A little property in St. Joe furnished him with a pitance every month, and in the interim he was kept at the county poorhouse. It was pitiful, beyond all words, to see him seated among the paupers, listless and almost unconscious of what passed about him. Now and then something would fit across his face that seemed almost like a recollection of better and brighter days, and then he would sink back into the dark eclipse again. They called him the professor, because occasionally he would speak in a way that told his fellow unfortunates that he was one day better than they, and they treated him with something akin to consideration. He will be buried to-morrow at the expense of the county.

A Fish Candle.

A singular fish is found in great numbers in the coast rivers of Alaska. It is about eight inches long, transparent, and the most fat of all the fatty tribes. This fish, however, had not the oily, rancid taste of other fish, but is like fresh fat. When these fish are dried the Indians often turn them to a novel and practical account—burn them in place of candles. They give a clear, brilliant light, and are not liable to be blown out by the wind. The fish should be lighted instead of the head, and each fish will burn about fifteen minutes.

SCIENTIFIC NOTES.

The elasticity of toughened glass is more than double that of ordinary glass, and the former bends much more readily than the latter.

Four kinds of filling are used in dentistry—gold, amalgam, basic salts of zinc and gutta percha. Others of minor importance are used occasionally.

Gun cotton has the great advantage over dynamite that it does not freeze and therefore needs no thawing out, a point appreciated in cold climates.

In the case of a hen poisoned with phosphorus the digestive organs were found luminous on the twenty-third day after death, and phosphorus was readily detected.

It is proposed to soak the edges and seams of carpets with an effusion of cayenne pepper and strychnia, one-quarter pound of pepper and two drachms strychnia powder to a gallon of water—for the benefit of the carpet beetle.

A brain, preserved and metalized, has been presented to the French Academy of Medicine. It was kept in alcohol for a month, then plunged into a solution of nitrate of silver, transferred to a case of sulphurated hydrogen and then exposed to the air.

The manner in which various butterflies break through the shell of the cocoon is very interesting. Some drop a minute portion of liquid from the mouth, which softens the shell; others exude acid, and others still pierce the shell by means of protuberances with which their foreheads are furnished.

A well-known German manufacturer of mica wares, Herr Raphael, of Breslau, now makes mica masks for the face which are quite transparent, very light and affected neither by heat nor by acids. They afford good protection to all workmen who are liable to be injured by heat, dust or noxious vapors; all workers with fire, metal and glass melters, stone masons, etc. In all kinds of grinding and polishing work the flying fragments rebound from the arched mica plates of the mask without injuring them.

The register in deeds of Bay City, Mich., stepped out of his room a minute, leaving his heavy glass in stand on the table. When he returned he found the inkstand split in two in the middle, though no person had been in the room. He wants the scientists to explain this phenomenon. The accident is not a very rare one. When glass, or any metal, is melted and cast in a thick mass, the outside cools first, and in cooling shrinks, thus producing a severe strain upon its particles. Then the inside cools and shrinks away from the outside, producing another counter strain. The tendency of these strains is to produce a split. When a mass of glass or metal which is under such a strain is warmed by the sun or a current of warm air, more upon one side than the other, the outside of that side expands and produces an additional strain which may cause it to fly to pieces. These are the causes why glass lamp chimneys break, and these are the reasons which scientists would give for the Bay City phenomenon.

Labor on a Sandwich Island Plantation.

A letter from the Sandwich Islands gives this interesting account of life on the plantations there: In the field and at the mill hands work lazily, talking and laughing among themselves, looking healthy, cheerful and contented and on the best terms with the planters and overseers. The work is what any boy or girl fifteen years old could perform, but the boys and girls must go to school. No matter how far the cane-field may be from their houses, laborers are not required to start any earlier in the morning, and they reach home just as soon in the evening. The hardest work is hoeing, and that consists of only turning a light, sandy soil, and they themselves say they are never hurried against their will. The method adopted by a manager to get a good day's work out of them is to go among them and talk freely, allowing them opportunities of showing their wit, and then pit one gang against another. The native is particularly susceptible to this treatment. Natives usually reeple; Chinese never do, but they haunt a plantation after the expiration of their contract, gambling with the hands, selling them smuggled opium and liquor. The native, like the child that he is, gives them all he earns in exchange for liquor which he cannot resist. Contracts, which are usually for one to three years, call for ten hours' work per day, but the days they work so long are few and far between. At the Koloa mill they were grinding from 1 o'clock in the morning till 6 in the evening, with a separate gang for night and day, making eight and a half hours all told, including the dinner hour. Hands employed at feeding the rollers knocked off shortly after 3 o'clock in the afternoon. This is one of the oldest plantations in the kingdom, and never has had any trouble with its men.

Some Long Tunnels.

The longest tunnel in the world, the St. Gothard passage beneath the Alps, was opened for traffic in January. It is practically finished now, but like all public works is subjected to delay for the sake of the last touches. The St. Gothard tunnel, however, has been put through more expeditiously than most such enterprises. It was begun in 1873, is nine miles and a quarter long, and has cost \$16,000,000. Europe and the Alps also claim the next longest tunnel ever constructed—that known as Mount Cenis—which was opened ten years ago. This is seven miles and a half long and cost \$15,000,000. Next in length comes the Hoosac tunnel in Massachusetts, four miles and three-quarters in length, on whose excavation about \$14,000,000 was expended. In all three the powerful modern forces, compressed air and nitro-glycerine or dynamite, played important parts. Through portal service between the English channel and the Adriatic will be established by the way of the St. Gothard tunnel on its completion.

The average pay of the St. Louis school teacher is \$15.57 a year.

WISE WORDS.

The sourest man is not wholly hopeless when he will not blaspheme before his son.

To impress we must be in earnest, to amuse it is only necessary to be kindly and fanciful.

To be deprived of the person we love is a happiness in comparison with living with one we hate.

Let others do as they please; but do you always act according to the dictates of thy own judgment, and take heed of being self-condemned.

Health is the bed-plate on which the whole mental machinery must rest and work. If this be cracked or displaced all the mechanism that stands on it will be jarred and disturbed and made ineffective.

Leaves, speaking of Goethe, says: "To his opponents, generally, he said, 'If they could judge me I should not be the man I am.' 'The barking of the curs,' he said, 'which follow us as we leave the stable, proves nothing more than that we are on horseback.'"

Hope is a ruddy morning ray of joy, recollection is its golden tinge; but the latter is wont to sink amid the dews and dusky shades of twilight; and the bright blue days which the former promises, break indeed, but in another world and with another sun.

It is private life that governs the world. The world talks much of powerful sovereigns and great ministers, and if being talked about made one powerful they would be irresistible; but the fact is, the more you are talked about the less powerful you are.

Pitiful that a man should so care for riches as if they were his own; yet so use them as if they were another's; that when he might be happy in spending them he will be miserable in keeping them; and had rather, dying, leave wealth with his enemies, than, being alive, relieve his friends.

Anesthetics.

Dr. John G. Johnson, of Brooklyn, recently read an interesting paper before the New York Medico-Legal society on "Anesthetics." The following are some of the points of the doctor's statements:

Should a patient die from chloroform inhaled in a sitting position in a dentist's chair it could no longer be urged in behalf of the surgeon, whose patient had been chloroformed out of existence, as it was successfully argued in behalf of the young Parisian surgeon in 1853, who had been imprisoned for the death of a patient under chloroform, on whom he was operating without assistance, that there was no fixed rules for the administration of chloroform. The English chloroform committee appointed by the Royal Medico-Chirurgical society laid down in 1864 the rule that anesthetics should always be given in the recumbent position and never in the erect position. The reason of this rule is evident. In natural respiration the rising and falling of the ribs is produced by the intercostal muscles, and the respiration is called thoracic. As the patient comes under the influence of the anesthetic, these intercostal muscles become paralyzed and cease their action. The respiration is then kept up by the action of the diaphragm or abdominal respiration. Those who have seen much of the patients under the influence of anesthetics in our large hospitals must have noticed how quickly a patient stopped breathing at this stage if an assistant pressed against the abdomen, to watch the operation or to pass an instrument. Now, as soon as the patient comes fully under the influence of an anesthetic, she slips down in the dentist's chair. The weight of the upper portion of the body is compressing the abdomen—preventing the diaphragm from acting. I think, with the present knowledge of anesthetics, that a surgeon who should administer chloroform to a patient in the erect position in the dentist's chair, with her clothes tight around her waist, and the patient should die, he would justly be held for manslaughter. During the early ages of anesthetics, the knowledge of the profession was only experimental. That age has passed. The most distinguished men in the profession, as long ago as 1864, published this rule and the reasons for it. Subsequent experimentation has demonstrated the justice of it. It has been adopted by all our modern writers on the subject. The courts have held over and over again that a physician must practice according to the well-known rules of the profession, and if he departs from them it is at his peril.

Chinese Printing.

The blocks are all of the same size, about eight inches by twelve inches, and about half an inch thick. Each block represents two leaves of four pages of the book, being engraved on both sides. The blocks for a complete work can thus be stored away in a very small compass. The cost of engraving a page of the wooden blocks is said to be but little more than the expense of setting up a page of Chinese type and preparing it for the press. An edition of one copy can be printed if no more are required, and thus the expense of keeping a large stock of printed books on hand, some of which might eventually have to be sold as waste paper when they grew out of date or revisions had to be made, as is the case among ourselves, is entirely avoided. Any errors or misprints that may be discovered can as a rule be corrected on the blocks with but very little trouble.

A skillful printer can print by hand 5,000 leaves of two pages each in a day, using no press or machinery whatever. He supplies his own tools and receives as wages about twenty-five cents a day. The paper ordinarily used is white and of the best quality, although a yellowish kind is also made use of at a reduction of twenty per cent on the selling price. The books are bound in the usual Chinese style and lettered with white silk thread. They present an appearance which attests the taste of the most fastidious native.—*London News.*

